DOCKET NO.: IVIA-0004 PATENT

**Application No.:** 10/663,325

Office Action Dated: June 16, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

1-10 (cancelled)

11. (Currently amended) A method for caching a content element, the method comprising the steps of:

receiving a content element retrieval request corresponding to the content element; sending a retrieval response, in response to the content element retrieval request, the retrieval response indicating whether the content element resides in a component cache; receiving a content element insertion request corresponding to the content element; sending an insertion response, in response to the content element insertion request, the insertion response indicating whether the content element was successfully inserted into the component cache;

determining whether the content element should reside in the component cache; removing the content element from the component cache, in response to a determination that the content element should not reside in the component cache; and associating the content element with a content element node and storing the content element and the content element node in the component cache, in response to a determination that the content element should reside in the component cache, said content element node comprising a next node data component comprising node identifiers (NodeIDs) for all nodes that are reachable in a single step from a current node.

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- 12. (Currently Amended) The method of Claim 11, wherein the content element node <u>further</u> comprises a <u>NodeID node identifier (NodeID) data field</u>, a <u>NavProb and a navigation</u> probability (NavProb) data field comprising a conditional probability that a user will request a current content element, and a <u>NextNode</u>.
- 13. (Original) The method of Claim 11, wherein the determination that the content element should not reside in the component cache is made by a content replacement manager.

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14. (Original) The method of Claim 13, wherein the content replacement manager determines

whether the content element should reside in the component cache by determining whether a

second content element should replace the content element.

15. (Original) The method of Claim 13, wherein the content replacement manager determines

whether the content element should reside in the component cache by determining how

recently the content element has been referenced.

16. (Original) The method of Claim 13, wherein the content replacement manager determines

whether the content element should reside in the component cache by determining the

likelihood that the content element will be needed.

17. (Original) The method of Claim 16, wherein the content replacement manager determines

that the content element should not reside in the component cache, in response to a

determination that the content element is unlikely to be needed.

18. (Original) The method of Claim 16, wherein the content replacement manager determines

that the content element should reside in the component cache; in response to a determination

that the content element is likely to be needed.

19-20 (cancelled.)

21. (Previously presented) A web page delivery system for generating a web page,

comprising:

a web/app server operative to receive a web page request from a user for a web page

including at least one content element not previously served to said user;

a preloader operable to deliver the at least one content element to the web/app server,

wherein the preloader comprises a component cache local to the web/app server for

maintaining the at least one content element; and

a profile server operative to receive a hint request from the preloader and to deliver a

hint to the preloader;

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wherein the preloader delivers the at least one content element to the web/app server where the hint indicates that the at least one content element is needed by the web/app server to generate the web page.

22. (Previously presented) The web page delivery system of Claim 21, wherein the preloader is further operative to receive a content element insertion request from the web/app server and to service the request in response to receiving the content element insertion request.

23. (Previously presented) The web page delivery system of Claim 21, wherein the preloader further comprises a cache manager operative to determine whether the at least one content element resides in the component cache.

24. (Previously presented) The web page delivery system of Claim 23 further comprising a secondary web/app server operative to send component insertion requests to the cache manager.

25. (Previously presented) The web page delivery system of Claim 21, wherein the preloader further comprises a cache replacement manager operative to control a replacement policy of the component cache.

26. (Previously presented) A method for delivering a web page, comprising:

receiving a web page request for a web page having at least one requested content element;

determining whether a tagged content element associated with the at least one requested content element resides in a component cache;

generating the requested content element if the tagged content element does not reside in the component cache;

generating a hint request;

storing a content element node in the component cache, in response to a determination that the tagged content element does not reside in the component cache, the content element node corresponding to the generated content element; and

delivering the web page comprising the at least one requested content element.

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27. (Previously presented) The method of claim 26, further comprising the step of generating a content response for each web page request, wherein the content response includes the tagged content element if the tagged content element resides in the component cache.

- 28. (Previously presented) The method of Claim 27, further comprising the step of generating a hint request associated with the content element node, the hint request comprising the likelihood that the requested content element will be needed by a future web page request.
- 29. (Previously presented) The method of Claim 28, further comprising the steps of receiving a hint response associated with the hint request, in response to the generation of the hint request, and making a cache replacement decision, in response to receiving the hint response.
- 30. (Previously presented) The method of Claim 29, wherein the cache replacement decision indicates whether the requested content element should be maintained in the component cache.
- 31. (Previously presented) The method of Claim 27, wherein the content response comprises an indication as to whether the tagged content element resides in the component cache.